THE JOURNAL OF EXPERIMENTAL MEDICINE

Edited by

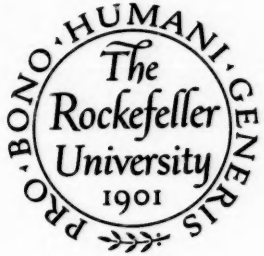
Anthony Cerami Zanvil A. Cohn Maclyn McCarty

Assistant Editors

Allan R. Goldberg Carl Nathan Ellen Pure Ralph Steinman

Advisory Editors

K. Frank Austen
Baruj Benacerraf
Constantin A. Bona
George Cross
John R. David
Frank J. Dixon
Bernard N. Fields
Shu Man Fu
Emil C. Gotschlich
Hidesaburo Hanafusa
Thomas J. Kindt
Seymour J. Klebanoff
Norman R. Klinman
Frank Lilly
Philippa Marrack
Lloyd F. Mayer
Hans J. Müller-Eberhard
E. A. McCulloch
Ralph L. Nachman
Robert J. North
Victor Nussenzweig
Michael B. A. Oldstone
William E. Paul
Russell Ross
Pablo Rubinstein
David H. Sachs
Matthew D. Scharff
Hans Schreiber
Benjamin D. Schwartz
Kendall A. Smith
Jonathan Sprent
Timothy A. Springer
Ching C. Wang
D. J. Weatherall
Zena Werb
Alan F. Williams
Darcy B. Wilson
Henry J. Winn



VOLUME 163

1986

PUBLISHED MONTHLY BY

THE ROCKEFELLER UNIVERSITY PRESS

COPYRIGHT © 1986 BY THE ROCKEFELLER UNIVERSITY PRESS

CONTENTS

Volume 163 No. 1 January 1, 1986

1 IRVING GOLDSCHNEIDER, KRISTIN L. KOMSCHLIES, and DALE GREINER. Studies on thymocytopoiesis in rats and mice. I. Kinetics of appearance of thymocytes using a direct intrathymic adoptive transfer assay for thymocyte precursors

18 DANIELA SANTOLI, DAVID J. TWEARDY, DARIO FERRERO, BRENT L. KREIDER, and GIOVANNI ROVERA. A suppressor lymphokine produced by human T leukemia cell lines. Partial characterization and spectrum of activity against normal and malignant hemopoietic cells

41 MICHAEL J. WALSH and WALLACE W. TOURTELLOTTE. Temporal invariance and clonal uniformity of brain and cerebrospinal IgG, IgA, and IgM in multiple sclerosis

54 SZU-HEE LEE, PAUL CROCKER, and SIAMON GORDON. Macrophage plasma membrane and secretory properties in murine malaria. Effects of *Plasmodium yoelii* blood-stage infection on macrophages in liver, spleen, and blood

75 MICHAEL J. CAULFIELD, KATHLEEN J. LUCE, DIANA SHAFFER, and JEFFREY P. LAKE. The antibody response to specific immune complexes is under genetic control and correlates with the expression of a recurrent idiotype

87 EDWARD H. LEITER, JOSEPH W. FEWELL, and EDWARD L. KUFF. Glucose induces intracisternal type A retroviral gene transcription and translation in pancreatic beta cells

101 PAUL S. CHANGELIAN and DOUGLAS T. FEARON. Tissue-specific phosphorylation of complement receptors CR1 and CR2

116 CHARLES L. SIDMAN, JAN D. MARSHALL, WESLEY G. BEAMER, JOSEPH H. NADEAU, and EMIL R. UNANUE. Two loci affecting B cell responses to B cell maturation factors

129 BELUR N. MANJULA, A. SEETHARAMA ACHARYA, THOMAS FAIRWELL, and VINCENT A. FISCHETTI. Antigenic domains of the streptococcal Pep M5 protein. Localization of epitopes crossreactive with type 6 M protein and identification of a hypervariable region of the M molecule

139 ALAN A. ADEREM, WILLIAM A. SCOTT, and ZANVIL A. COHN. Evidence for sequential signals in induction of the arachidonic acid cascade in macrophages

155 THOMAS J. MERCOLINO, LARRY W. ARNOLD, and GEOFFREY HAUGHTON. Phosphatidyl choline is recognized by a series of Ly-1$^+$ murine B cell lymphomas specific for erythrocyte membranes

166 PILAR PEREZ, ROBERT W. HOFFMAN, JULIE A. TITUS, and DAVID M. SEGAL. Specific targeting of human peripheral blood T cells by heteroaggregates containing anti-T3 crosslinked to anti-target cell antibodies

179 RUPERT SCHMIDT-ULLRICH, JAMES BROWN, HILTON WHITTLE, and PECK-SUN LIN. Human-human hybridomas secreting monoclonal antibodies to the M_r 195,000 *Plasmodium falciparum* blood stage antigens

189 JOHN P. TITE, JONATHAN KAYE, KAJ M. SAIZAWA, JEFFREY MING, MICHAEL E. KATZ, LAURA A. SMITH, and CHARLES A. JANEWAY, JR. Direct interactions between B and T lymphocytes bearing complementary receptors

BRIEF DEFINITIVE REPORTS

203 IAN M. ORME and FRANK M. COLLINS. Crossprotection against nontuberculous mycobacterial infections by *Mycobacterium tuberculosis* memory immune T lymphocytes

209 LEWIS L. LANIER, STEVE CWIRLA, NANCY FEDERSPIEL, and JOSEPH H. PHILLIPS. Human natural killer cells isolated from peripheral blood do not rearrange T cell antigen receptor β chain genes

215 ANDREA ANICHINI, GIUSEPPE FOSSATI, and GIORGIO PARMIANI. Heterogeneity of clones from a human metastatic melanoma detected by autologous cytotoxic T lymphocyte clones

221 ADAM S. ASCH, TAROH KINOSHITA, ERIC A. JAFFE, and VICTOR NUSSENZWEIG. Decay-accelerating factor is present on cultured human umbilical vein endothelial cells

Volume 163 No. 2 February 1, 1986

231 B. A. KYEWSKI, C. G. FATHMAN, AND R. V. ROUSE. Intrathymic presentation of circulating non-MHC antigens by medullary dendritic cells. An antigen-dependent microenvironment for T cell differentiation

247 KAYO INABA AND RALPH M. STEINMAN. Accessory cell–T lymphocyte interactions. Antigen-dependent and -independent clustering

262 RICHARD A. INSEL AND PORTER W. ANDERSON. Oligosaccharide–protein conjugate vaccines induce and prime for oligoclonal IgG antibody responses to the *Haemophilus influenzae* b capsular polysaccharide in human infants

270 MARTIN GULLBERG AND KENDALL A. SMITH. Regulation of T cell autocrine growth. $T4^+$ cells become refractory to interleukin 2

285 KURT C. GUNTER, RICHARD A. KROCZEK, ETHAN M. SHEVACH, AND RONALD N. GERMAIN. Functional expression of the murine Thy-1.2 gene in transfected human T cells

301 RICHARD P. MORRISON, JANE NISHIO, AND BRUCE CHESEBRO. Influence of the murine MHC (H-2) on Friend leukemia virus–induced immunosuppression

315 KENNETH L. ROCK, EDWARD T. H. YEH, COLETTE F. GRAMM, SUSAN I. HABER, HANS REISER, AND BARUJ BENACERRAF. TAP, a novel T cell activating protein involved in the stimulation of MHC-restricted T lymphocytes

334 KIRSTEN FISCHER LINDAHL, BARBARA HAUSMANN, PETER J. ROBINSON, JEAN-LOUIS GUÉNET, DANNY C. WHARTON, AND HEINZ WINKING. Mta, the maternally transmitted antigen, is determined jointly by the chromosomal *Hmt* and the extrachromosomal *Mtf* genes

347 FATIH M. UCKUN, KAZIMIERA J. GAJL-PECZALSKA, JOHN H. KERSEY, LOU L. HOUSTON, AND DANIEL A. VALLERA. Use of a novel colony assay to evaluate the cytotoxicity of an immunotoxin containing pokeweed antiviral protein against blast progenitor cells freshly obtained from patients with common B-lineage acute lymphoblastic leukemia

369 RONALD PALACIOS, TAURO NERI, AND MANFRED BROCKHAUS. Monoclonal antibodies specific for interleukin 3–sensitive murine cells

383 RUTH F. JARRETT, HIROAKI MITSUYA, DEAN L. MANN, JEFFREY COSSMAN, SAMUEL BRODER, AND MARVIN S. REITZ. Configuration and expression of the T cell receptor β chain gene in human T-lymphotrophic virus I–infected cells

400 DOROTHY F. BAINTON, MARY A. MALONEY, HARVEY M. PATT, AND ROBERT STERN. Characterization of rabbit stromal fibroblasts derived from red and yellow bone marrow

414 GREGORY Y. CHENG, MARK D. MINDEN, BARRY TOYONAGA, TAK W. MAK, AND ERNEST A. MCCULLOCH. T cell receptor and Ig gene rearrangements in acute myeloblastic leukemia

425 HENRY CHANG, ETHAN DMITROVSKY, PHILIP A. HIETER, KENNETH MITCHELL, PHILIP LEDER, LESTER TUROCZI, ILAN R. KIRSCH, AND GREGORY F. HOLLIS. Identification of three new Ig λ-like genes in man

436 KASPAR SERTL, TAMIKO TAKEMURA, ERWIN TSCHACHLER, VICTOR J. FERRANS, MICHAEL A. KALINER, AND ETHAN M. SHEVACH. Dendritic cells with antigen-presenting capability reside in airway epithelium, lung parenchyma, and visceral pleura

BRIEF DEFINITIVE REPORTS

452 HIROSHI MORISHITA, HIROSHI SHIKU, KEIZO HORIBE, YUICHI OBATA, ELISABETH STOCKERT, HERBERT F. OETTGEN, LLOYD J. OLD, AND KAZUMASA YAMADA. Cell surface antigens of murine leukemias induced by radiation leukemia virus. Recognition of individually distinct cell surface antigens by cytotoxic T cells on leukemias expressing crossreactive transplantation antigens

458 JUDITH ANDREWS, LEMING HANG, ARGYRIOS N. THEOFILOPOULOS, AND FRANK J. DIXON. Lack of relationship between serum gp70 levels and the severity of systemic lupus erythematosus in MRL/l mice

463 ANDREAS KÖCK, MARTIN DANNER, BEDA M. STADLER, AND THOMAS A. LUGER. Characterization of a monoclonal antibody directed against the biologically active site of human interleukin 1

469 HIROMITSU KIMURA, WILLYS K. SILVERS, AND DARCY B. WILSON. Immunogenicity and crossreactivity of specificity-associated markers on alloreactive T cells. Confirmation based on the model of tolerance abolition by adoptive transfer

474 R. VAN FURTH AND W. SLUITER. Distribution of blood monocytes between a marginating and a circulating pool

481 CORRECTIONS

483 CORRECTIONS

Volume 163 No. 3 March 1, 1986

489 ABRAHAM KUPFER, S. J. SINGER, and GUNTHER DENNERT. On the mechanism of unidirectional killing in mixtures of two cytotoxic T lymphocytes. Unidirectional polarization of cytoplasmic organelles and the membrane-associated cytoskeleton in the effector cell

499 RICK L. MEEK, JEFFREY S. HOFFMAN, and EARL P. BENDITT. Amyloidogenesis. One serum amyloid A isotype is selectively removed from the circulation

511 NORBERT J. ROBERTS, JR., ALEJANDRA H. PRILL, and THOMAS N. MANN. Interleukin 1 and interleukin 1 inhibitor production by human macrophages exposed to influenza virus or respiratory syncytial virus. Respiratory syncytial virus is a potent inducer of inhibitor activity

520 MICHEL RABINOVITCH, VLADIMIR ZILBERFARB, and CLAUDE RAMAZEILLES. Destruction of *Leishmania mexicana amazonensis* amastigotes within macrophages by lysosomotropic amino acid esters

536 WILLIAM E. KEENE, MATTHEW G. PETITT, SUSAN ALLEN, and JAMES H. MCKERROW. The major neutral proteinase of *Entamoeba histolytica*

550 MASAHIRO FUJII, KAZUO SUGAMURA, KOUICHI SANO, MASUYO NAKAI, KENJI SUGITA, and YORIO HINUMA. High-affinity receptor-mediated internalization and degradation of interleukin 2 in human T cells

563 YUKIHARU SAWADA, DEBORAH URBANELLI, JANA RASKOVA, THOMAS E. SHENK, and KAREL RASKA, JR. Adenovirus tumor-specific transplantation antigen is a function of the E1A early region

573 CLAUDINE SCHIFF, MICHÈLE MILILI, ISABELLE HUE, STUART RUDIKOFF, and MICHEL FOUGEREAU. Genetic basis for expression of the idiotypic network. One unique Ig V_H germline gene accounts for the major family of Ab1 and Ab3 (Ab1′) antibodies of the GAT system

588 NICHOLAS A. KEFALIDES, MARIE T. PEGG, NOBUKO OHNO, THEO POON-KING, JOHN ZABRISKIE, and HOWARD FILLIT. Antibodies to basement membrane collagen and to laminin are present in sera from patients with poststreptococcal glomerulonephritis

603 TOSHIAKI MIZUOCHI, SHIRO ONO, THOMAS R. MALEK, and ALFRED SINGER. Characterization of two distinct primary T cell populations that secrete interleukin 2 upon recognition of class I or class II major histocompatibility antigens

620 MOSES RODRIGUEZ, JULIAN LEIBOWITZ, and CHELLA S. DAVID. Susceptibility to Theiler's virus-induced demyelination. Mapping of the gene within the H-2D region

632 JAN VILČEK, VITO J. PALOMBELLA, DOROTHY HENRIKSEN-DESTEFANO, CHRISTINA SWENSON, RENA FEINMAN, MAKOTO HIRAI, and MASAFUMI TSUJIMOTO. Fibroblast growth enhancing activity of tumor necrosis factor and its relationship to other polypeptide growth factors

644 DANIEL J. NOONAN, REINHARD KOFLER, PAUL A. SINGER, GUS CARDENAS, FRANK J. DIXON, and ARGYRIOS N. THEOFILOPOULOS. Delineation of a defect in T cell receptor β genes of NZW mice predisposed to autoimmunity

654 W. HOLTER, G. F. FISCHER, O. MAJDIC, H. STOCKINGER, and W. KNAPP. T cell stimulation via the erythrocyte receptor. Synergism between monoclonal antibodies and phorbol myristate acetate without changes of free cytoplasmic Ca^{++} levels

665 KIYOSHI TAKEUCHI, HEATHER WOOD, and RICHARD T. SWANK. Lysosomal elastase and cathepsin G in beige mice. Neutrophils of beige (Chediak-Higashi) mice selectively lack lysosomal elastase and cathepsin G

678 ROBERT I. LECHLER, FRANCA RONCHESE, NED S. BRAUNSTEIN, and RONALD N. GERMAIN. I-A-restricted T cell antigen recognition. Analysis of the roles of A_α and A_β using DNA-mediated gene transfer

697 KENNETH H. JOHNSTON and JOHN B. ZABRISKIE. Purification and partial characterization of the nephritis strain-associated protein from *Streptococcus pyogenes*, group A

713 DONALD Y. M. LEUNG, MICHAEL C. YOUNG, NANCY WOOD, and RAIF S. GEHA. Induction of IgE synthesis in normal human B cells. Sequential requirements for activation by an alloreactive T cell clone and IgE-potentiating factors

724 ROBERT L. JONES. Hematin-derived anticoagulant. Generation in vitro and in vivo

BRIEF DEFINITIVE REPORTS

740 PETER P. NAWROTH and DAVID M. STERN. Modulation of endothelial cell hemostatic properties by tumor necrosis factor

746 DENNIS A. CARSON, SHIRO SETO, and D. BRUCE WASSON. Lymphocyte dysfunction after DNA damage by toxic oxygen species. A model of immunodeficiency

752 A. O. S. FELS, N. A. PAWLOWSKI, E. L. ABRAHAM, and Z. A. COHN. Compartmentalized regulation of macrophage arachidonic acid metabolism

Volume 163 No. 4 April 1, 1986

759 R. EPSTEIN, G. SHAM, J. WOMACK, J. YAGÜE, E. PALMER, and M. COHN. The cytotoxic T cell response to the male-specific histocompatibility antigen (H-Y) is controlled by two dominant immune response genes, one in the MHC, the other in the Tarα-locus

774 RICHARD P. ARTHUR and DON MASON. T cells that help B cell responses to soluble antigen are distinguishable from those producing interleukin 2 on mitogenic or allogeneic stimulation

787 CHANG-YUIL KANG and HEINZ KOHLER. Immunoglobulin with complementary paratope and idiotope

797 CARL WALTENBAUGH, LIZHE SUN, and HUAN-YAO LEI. Regulation of immune responses by I-J gene products. VI. Recognition of I-E molecules by I-J-bearing suppressor factors

812 REINHOLD E. SCHMIDT, GAIL T. BARTLEY, SHINJI S. LEE, JOHN F. DALEY, HANS DIETER ROYER, HERBERT LEVINE, ELLIS L. REINHERZ, STUART F. SCHLOSSMAN, and JEROME RITZ. Expression of the NKTa clonotype in a series of human natural killer clones with identical cytotoxic specificity

826 R. JOHN LOONEY, DANIEL H. RYAN, KAZUHIKO TAKAHASHI, HOWARD B. FLEIT, HARVEY J. COHEN, GEORGE N. ABRAHAM, and CLARK L. ANDERSON. Identification of a second class of IgG Fc receptors on human neutrophils. A 40 kilodalton molecule also found on eosinophils

837 TSUKASA SEYA, JERRY R. TURNER, and JOHN P. ATKINSON. Purification and characterization of a membrane protein (gp45-70) that is a cofactor for cleavage of C3b and C4b

856 JUN-ICHI MIYAZAKI, ETTORE APPELLA, HONG ZHAO, JAMES FORMAN, and KEIKO OZATO. Expression and function of a nonglycosylated major histocompatibility class I antigen

872 WILLIAM E. BOWERS and MARY R. BERKOWITZ. Differentiation of dendritic cells in cultures of rat bone marrow cells

884 S. M. WAHL, D. A. HUNT, J. B. ALLEN, R. L. WILDER, L. PAGLIA, and A. R. HAND. Bacterial cell wall–induced hepatic granulomas. An in vivo model of T cell–dependent fibrosis

903 LYNDA A. MORRISON, ARON E. LUKACHER, VIVIAN L. BRACIALE, DAVID P. FAN, and THOMAS J. BRACIALE. Differences in antigen presentation to MHC class I– and class II–restricted influenza virus–specific cytolytic T lymphocyte clones

922 A. GRANELLI-PIPERNO, L. ANDRUS, and R. M. STEINMAN. Lymphokine and nonlymphokine mRNA levels in stimulated human T cells. Kinetics, mitogen requirements, and effects of cyclosporin A

938 JAMES R. DASCH and PATRICIA P. JONES. Independent regulation of IgM, IgD, and Ia antigen expression in cultured immature B lymphocytes

952 PENTTI UKKONEN, VICTORIA LEWIS, MARK MARSH, ARI HELENIUS, and IRA MELLMAN. Transport of macrophage Fc receptors and Fc receptor–bound ligands to lysosomes

972 NOBUKATA SHINOHARA, JEFFREY A. BLUESTONE, and DAVID H. SACHS. Cloned cytotoxic T lymphocytes that recognize an I-A region product in the context of a class I antigen

981 GEORG KRAAL, MATTHIS BREEL, MARGA JANSE, and GERRY BRUIN. Langerhans' cells, veiled cells, and interdigitating cells in the mouse recognized by a monoclonal antibody

998 JONATHAN SPRENT, MARY SCHAEFER, DAVID LO, and ROBERT KORNGOLD. Properties of purified T cell subsets. II. In vivo responses to class I vs. class II H-2 differences

BRIEF DEFINITIVE REPORTS

1012 PRAKASH D. SHAH, JAN KEIJ, SUSAN M. GILBERTSON, and DONALD A. ROWLEY. Thy-1$^+$ and Thy-1$^-$ natural killer cells suppress dendritic cells

1018 DAVID B. LEWIS, ALF LARSON, and CHRISTOPHER B. WILSON. Reduced interferon-gamma mRNA levels in human neonates. Evidence for an intrinsic T cell deficiency independent of other genes involved in T cell activation

1024 FRANK EMMRICH, JELLE THOLE, JAN VAN EMBDEN, and STEFAN H. E. KAUFMANN. A recombinant 64 kD protein of *Mycobacterium bovis* Bacillus Calmette-Guerin specifically stimulates human T4 clones reactive to mycobacterial antigens

1030 KAYO INABA, MAKOTO KITAURA, TAKUMA KATO, YOSHIHIKO WATANABE, YOSHIMA KAWADE, and SHIGERU MURAMATSU. Contrasting effect of α/β- and γ-interferons on expression of macrophage Ia antigens

Volume 163 No. 5 May 1, 1986

1037 JOHN H. KEHRL, LALAGE M. WAKEFIELD, ANITA B. ROBERTS, SONIA JAKOWLEW, MELCHOR ALVAREZ-MON, RIK DERYNCK, MICHAEL B. SPORN, and ANTHONY S. FAUCI. Production of transforming growth factor β by human T lymphocytes, and its potential role in the regulation of T cell growth

1051 DANIELE PRIMI, ANNE-MARIE DRAPIER, and PIERRE-ANDRÉ CAZENAVE. Differential expression of sets of highly homologous variable region gene products in selected and preimmune repertoires of inbred mouse strains

1064 AARO MIETTINEN, JENNIFER L. STOW, SUEANNE MENTONE, and MARILYN GIST FARQUHAR. Antibodies to basement membrane heparan sulfate proteoglycans bind to the laminae rarae of the glomerular basement membrane (GBM) and induce subepithelial GBM thickening

1085 ANGEL F. LOPEZ, C. GLENN BEGLEY, D. JAMES WILLIAMSON, DAVID J. WARREN, MATHEW A. VADAS, and COLIN J. SANDERSON. Murine eosinophil differentiation factor. An eosinophil-specific colony-stimulating factor with activity for human cells

1100 MARTIN A. CHEEVER, DIANNE BRITZMANN THOMPSON, JAY P. KLARNET, and PHILIP D. GREENBERG. Antigen-driven long term–cultured T cells proliferate in vivo, distribute widely, mediate specific tumor therapy, and persist long-term as functional memory T cells

1113 JAMES R. CATTERALL, SOMESH D. SHARMA, and JACK S. REMINGTON. Oxygen-independent killing by alveolar macrophages

1132 ROBERT ROTHLEIN and TIMOTHY A. SPRINGER. The requirement for lymphocyte function–associated antigen 1 in homotypic leukocyte adhesion stimulated by phorbol ester

1150 MICHAEL A. DAVITZ, MARTIN G. LOW, and VICTOR NUSSENZWEIG. Release of decay-accelerating factor (DAF) from the cell membrane by phosphatidylinositol-specific phospholipase C (PIPLC). Selective modification of a complement regulatory protein

1162 ZAHRA TOOSSI, MARY ELLEN KLEINHENZ, and JERROLD J. ELLNER. Defective interleukin 2 production and responsiveness in human pulmonary tuberculosis

1173 MICHAEL S. KRANGEL. Secretion of HLA-A and -B antigens via an alternative RNA splicing pathway

1191 JAMES B. DALE and EDWIN H. BEACHEY. Localization of protective epitopes of the amino terminus of type 5 streptococcal M protein

1203 AIKICHI IWAMOTO, FABIO RUPP, PAMELA S. OHASHI, CHRISTINA L. WALKER, HANSPETER PIRCHER, ROLF JOHO, HANS HENGARTNER, and TAK W. MAK. T cell–specific genes in C57BL/10 mice. Sequence and expression of new constant and variable region genes

1213 MAARTEN ZIJLSTRA, WIES L. E. VASMEL, MICHEL VOORMANNS, RUUD E. Y. DE GOEDE, HARRIE J. SCHOENMAKERS, JOHN NIELAND, ROSALYN M. SLATER, and CORNELIS J. M. MELIEF. Imbalanced MHC class II molecule expression at surface of murine B cell lymphomas

1227 DANIELLE STFᵖHAN, HENRY SUN, KIRSTEN FISCHER LINDAHL, EVI MEYER, GÜNTER HÄMMERLING, LEROY HOOD, and MICHAEL STEINMETZ. Organization and evolution of D region class I genes in the mouse major histocompatibility complex

1245 SAMUEL D. WRIGHT, PATRICIA A. DETMERS, MICHELLE T. C. JONG, and B. CHRISTOPH MEYER. Interferon-γ depresses binding of ligand by C3b and C3bi receptors on cultured human monocytes, an effect reversed by fibronectin

1260 J. J. EMEIS and T. KOOISTRA. Interleukin 1 and lipopolysaccharide induce an inhibitor of tissue-type plasminogen activator in vivo and in cultured endothelial cells

1267 ELLEN KAHN BAYNE, ELIZABETH A. RUPP, GUADALUPE LIMJUCO, JAYNE CHIN, and JOHN A. SCHMIDT. Immunocytochemical detection of interleukin 1 within stimulated human monocytes

1281 CHRISTOPHER C. BUNN, ROBERT M. BERNSTEIN, and MICHAEL B. MATHEWS. Autoantibodies against alanyl-tRNA synthetase and $tRNA^{Ala}$ coexist and are associated with myositis

1292 DENNIS M. KLINMAN, J. FREDERIC MUSHINSKI, MASAAKI HOMDA, YOSHIAKI ISHIGATSUBO, JOHN D. MOUNTZ, ELIZABETH S. RAVECHE, and ALFRED D. STEINBERG. Oncogene expression in autoimmune and normal peripheral blood mononuclear cells

BRIEF DEFINITIVE REPORTS

1308 DANIÈLE MATHIEU-MAHUL, LI KUANG CHEN, CHRISTIAN-JACQUES LARSEN, and ARMAND BENSUSSAN. Detection of T cell receptor α chain locus rearrangements in human antigen-specific T lymphocyte clones using a DNA probe specific for chromosome region 14q11

1314 MAURICE ZAUDERER, AIKICHI IWAMOTO, and TAK W. MAK. γ gene rearrangement and expression in autoreactive helper T cells

1319 GREGORY L. BROWN, LUKE CURTSINGER, III, JOSEPH R. BRIGHTWELL, DOUGLAS M. ACKERMAN, GORDON R. TOBIN, HIRAM C. POLK, JR., CARLOS GEORGE-NASCIMENTO, PABLO VALENZUELA, and GREGORY S. SCHULTZ. Enhancement of epidermal regeneration by biosynthetic epidermal growth factor

1325 MICHAEL P. MURTAUGH, OLIVIA DENNISON, JOSEPH P. STEIN, and PETER J. A. DAVIES. Retinoic acid–induced gene expression in normal and leukemic myeloid cells

1331 MICHAEL B. MCCHESNEY, ROBERT S. FUJINAMI, PETER W. LAMPERT, and MICHAEL B. A. OLDSTONE. Viruses disrupt functions of human lymphocytes. II. Measles virus suppresses antibody production by acting on B lymphocytes

1337 LEO LEFRANCOIS, MATTHEW L. THOMAS, MICHAEL J. BEVAN, and IAN S. TROWBRIDGE. Different classes of T lymphocytes have different mRNAs for the leukocyte-common antigen, T200

1343 SUZANNE T. ILDSTAD, JEFFREY A. BLUESTONE, and DAVID H. SACHS. Alloresistance to engraftment of allogeneic donor bone marrow is mediated by an Lyt-2^+ T cell in mixed allogeneic reconstitution. (C57BL/10Sn + B10.D2/nSn → C57BL/10Sn)

1349 FRANÇOISE PRAZ and ERIK RUUTH. Growth-supporting activity of fragment Ba of the human alternative complement pathway for activated murine B lymphocytes

1355 KARIM ESSANI, JAVARAIAH SRINIVASAPPA, PATRICK R. MCCLINTOCK, BELLUR S. PRABHAKAR, and ABNER LOUIS NOTKINS. Multiple organ–reactive IgG antibody induced by an anti-idiotypic antibody to a human monoclonal IgM autoantibody

Volume 163 No. 6 June 1, 1986

1363 P. P. NAWROTH, I. BANK, D. HANDLEY, J. CASSIMERIS, L. CHESS, AND D. STERN. Tumor necrosis factor/cachectin interacts with endothelial cell receptors to induce release of interleukin 1

1376 HAJIME KAWAMURA, SUSAN O. SHARROW, DAVID W. ALLING, DAVID STEPHANY, JENA YORK-JOLLEY, AND JAY A. BERZOFSKY. Interleukin 2 receptor expression in unstimulated murine splenic T cells. Localization to $L3T4^+$ cells and regulation by non-H-2-linked genes

1391 MARY JACEWICZ, HENRIK CLAUSEN, EDWARD NUDELMAN, ARTHUR DONOHUE-ROLFE, AND GERALD T. KEUSCH. Pathogenesis of Shigella diarrhea. XI. Isolation of a Shigella toxin–binding glycolipid from rabbit jejunum and HeLa cells, and its identification as globotriaosylceramide

1405 KENNETH GRABSTEIN, JUNE EISENMAN, DIANE MOCHIZUKI, KURT SHANEBECK, PAUL CONLON, THOMAS HOPP, CARL MARCH, AND STEVEN GILLIS. Purification to homogeneity of B cell stimulating factor. A molecule that stimulates proliferation of multiple lymphokine-dependent cell lines

1415 MICHAEL J. DALEY, MASATAKA NAKAMURA, AND MALCOLM L. GEFTER. Functional and biochemical characterization of a secreted I-J(+) suppressor factor that binds to immunoglobulin

1433 CHARLES A. DINARELLO, JOSEPH G. CANNON, SHELDON M. WOLFF, HARRY A. BERNHEIM, BRUCE BEUTLER, ANTHONY CERAMI, IRENE S. FIGARI, MICHAEL A. PALLADINO, JR., AND JOHN V. O'CONNOR. Tumor necrosis factor (cachectin) is an endogenous pyrogen and induces production of interleukin 1

1451 EDWIN H. BEACHEY, HÉLÈNE GRAS-MASSE, ANDRÉ TARTER, MICHEL JOLIVET, FRANÇOISE AUDIBERT, LOUIS CHEDID, AND JEROME M. SEYER. Opsonic antibodies evoked by hybrid peptide copies of types 5 and 24 streptococcal M proteins synthesized in tandem

1459 DRAGANA LJ. JANKOVIĆ, DAVID WOODLAND, INGA MELCHERS, HANS-ULRICH WELTZIEN, RALPH T. KUBO, AND KLAUS EICHMANN. Involvement of the T cell antigen receptor and of Lyt-2 in the cytotoxic function of aged killer (AK) T cells

1477 K. H. G. MILLS, J. J. SKEHEL, AND D. B. THOMAS. Extensive diversity in the recognition of influenza virus hemagglutinin by murine T helper clones

1491 ROBERT M. SANGSTER, JUN MINOWADA, NICOLE SUCIU-FOCA, MARK MINDEN, AND TAK W. MAK. Rearrangement and expression of the α, β, and γ chain T cell receptor genes in human thymic leukemia cells and functional T cells

1509 D. R. ROBINSON, M. SKOSKIEWICZ, K. J. BLOCH, G. CASTORENA, E. HAYES, E. LOWENSTEIN, C. MELVIN, F. MICHELASSI, AND W. M. ZAPOL. Cyclooxygenase blockade elevates leukotriene E_4 production during acute anaphylaxis in sheep

1518 WILLIAM P. LAFUSE, NANCY BERG, SURESH SAVARIRAYAN, AND CHELLA S. DAVID. Mapping of a second recombination hot spot within the I-E region of the mouse H-2 gene complex

1529 JONATHAN W. YEWDELL, JACK R. BENNINK, MICHAEL MACKETT, LEO LEFRANCOIS, DOUGLAS S. LYLES, AND BERNARD MOSS. Recognition of cloned vesicular stomatitis virus internal and external gene products by cytotoxic T lymphocytes

1539 RICHARD J. BENJAMIN, STEPHAN P. COBBOLD, MICHAEL R. CLARK, AND HERMAN WALDMANN. Tolerance to rat monoclonal antibodies. Implications for serotherapy

1553 YOSHIO MORI, BUNSHIRO AKIKUSA, TERUO MORI, SHIRO UEDA, KENJI IESATO, HIROMICHI YOSHIDA, MAKOTO OGAWA, ISAO KATO, YOKO WAKASHIN, MASAFUMI WAKASHIN, AND KUNIO OKUDO. Experimental systemic amyloidosis induced by immunization with syngeneic organ extracts in mice

1566 RICHARD L. MOLDWIN, DAVID W. LANCKI, KEVAN C. HEROLD, AND FRANK W. FITCH. An antigen receptor–driven, interleukin 2–independent pathway for proliferation of murine cytolytic T lymphocyte clones

BRIEF DEFINITIVE REPORTS

1583 CLAUDIO MILANESE, ROBERT F. SILICIANO, REINHOLD E. SCHMIDT, JEROME RITZ, NEIL E. RICHARDSON, AND ELLIS L. REINHERZ. A lymphokine that activates the cytolytic program of both cytotoxic T lymphocyte and natural killer clones

1589 HOLLIE J. WESTLY, ALICE J. KLEISS, KEITH W. KELLEY, PAUL K. Y. WONG, AND PICK-HOONG YUEN. Newcastle disease virus–infected splenocytes express the proopiomelanocortin gene

1595 RALPH L. NACHMAN, KATHERINE A. HAJJAR, ROY L. SILVERSTEIN, AND CHARLES A. DINARELLO. Interleukin 1 induces endothelial cell synthesis of plasminogen activator inhibitor

1601 A. NOWILL, P. MOINGEON, A. YTHIER, M. GRAZIANI, F. FAURE, L. DELMON, M. RAINAUT, F. FORRESTIER, C. BOHUON, TH. HERCEND. Natural killer clones derived from fetal (25 wk) blood. Probing the human T cell receptor with WT31 monoclonal antibody

1607 CORNELIA M. WEYAND, JORG GORONZY, MARGARET J. DALLMAN, AND C. GARRISON FATHMAN. Administration of recombinant interleukin 2 in vivo induces a polyclonal IgM response

1613 AUTHOR INDEX TO VOLUME 163